

# Why are we here?

- Review the application / acceptance process
- Review the GRE and relevant information
- Suggest a method and schedule of study
- Develop a plan to maximize your scores on the GRE

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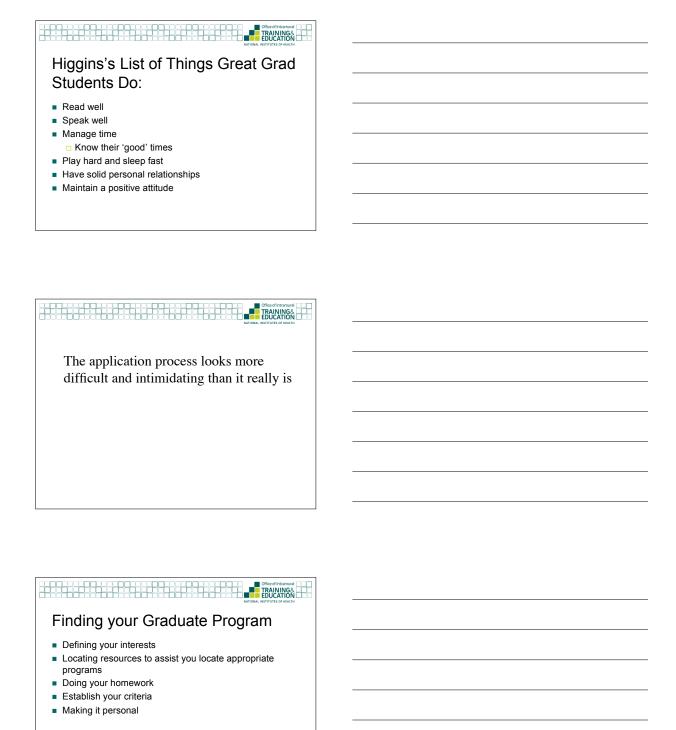
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What does a graduate student do?



# office of tritament TRAININGS EDUCATION Overview of application process ■ GRE exam □ When? Which tests? On line or paper applications? Personal Statements! Your Letters Transcripts Follow up letters & a phone call Interviews & visit days Apply early! office of tritamund TRAININGS EDUCATION Selection Criteria ■ GPA - overall and science GRE scores Application essays ■ Research Experience Letters **Graduate Record Examination** www.gre.org

# Two questions for today: 1. What is at stake with the GRE? (How important is it to your application?) 2. Can I really make a difference in my score by spending some preparation time?

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N.B. - You ARE a test taker!







# **GRE General Test**

Three sections and some other stuff

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The GRE: General Test	
<ul> <li>Verbal (200 - 800)</li> <li>Quantitative (200 - 800)</li> <li>Analytical Writing (1 - 6 scale)</li> <li>Issue Task</li> <li>Argument Task</li> </ul>	

# GRE General Test Overview

### What Is It?

The GRE® General Test measures verbal reasoning, quantitative reasoning, critical thinking, and analytical writing skills that have been acquired over a long period of time and that are not related to any specific field of study.

**Verbal Reasoning** — The skills measured include the test taker's ability to

- · analyze and evaluate written material and synthesize information obtained from
- analyze relationships among component parts of sentences
   recognize relationships between words and concepts.

Quantitative Reasoning - The skills measured include the test taker's ability to

- understand basic concepts of arithmetic, algebra, geometry, and data analysis
- reason quantitatively
   solve problems in a quantitative setting.

Analytical Writing — The skills measured include the test taker's ability to

- articulate complex ideas clearly and effectively
   examine claims and accompanying evidence
   support ideas with relevant reasons and examples
   sustain a well-focused, coherent discussion
   control the elements of standard written English.

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# **Computer Version**

- > 3.25 hours
- Analytical Writing first!
- Random order for verbal and quantitative sections
- You can't go back and you must answer questions in order
  - Click Next and Answer Confirmed
- You must be able to move on and forget previous questions



# Computer-Based General Test

Section	# of Questions	Time (min)
Analytical Writing	1 Issue Task 1 Argument Task	45 30
Verbal	30	30
Quantitative	28	45
Pretest	Varies	Varies
Research	Varies	Varies



# Computer-Based General Test

Section	Minutes # of Questions	Time/question
Verbal	30/30	1 min/question
Quantitative	45/28	1.6 min Or 96 sec/question



# **Quantitative Test Timing**

Question Number	Running Time
5	8 min (6)
10	16 min (13)
15	24 min (22)
20	32 min
25	40 min



# **General Test Scoring**

- Adaptive Scoring
- Number of Questions answered
- Performance on those questions
- Statistical characteristics
- Hint: do not guess but do finish!



# **General Test Scoring**

- Number of Questions answered
  - □ # correct minus one-quarter of number answered wrong
- Performance on those questions
- Statistical characteristics
- Hint: do not guess but do finish!

"Because both sections are computer adaptive, the questions presented are selected to reflect your performance on preceding questions and the requirements of the test design. Test design factors that influence which questions are presented to you include (1) the statistical characteristics of the questions already answered, (2) the required variety of questions types, and (3) the appropriate coverage of content."

www.gre.org/faqnew.html





### Reading Comprehension Questions

There are three types of Reading Comprehension questions:

Multiple-choice Questions — Select One Answer Choice: These are the traditional multiplechoice questions with five answer choices of which you must select one.

Multiple-choice Questions — Select One or More Answer Choices: These provide three answer choices and ask you to select all that are correct; one, two or all three of the answer choices may be correct. To gain credit for these questions, you must select all the correct answers, and only those; there is no credit for partially correct answers.

Select-in-Passage: The question asks you to click on the sentence in the passage that meets a certain description. To answer the question, you choose one of the sentences and click on it; clicking anywhere on a sentence will highlight it.

Reading comprehension passages are drawn from the physical sciences, the biological sciences, the social sciences, the arts and humanities, and everyday topics, and are based on material found in books and periodicals, both academic and nonacademic. The passages range in length from one paragraph to four or five paragraphs.



# Verbal Reasoning: No More Antonyms and Analogies. More Focus on Reading.

The GRE revised General Test places a greater emphasis on higher-level cognitive skills. Featuring new types of questions, the Verbal Reasoning section of the revised test more closely reflects the kind of thinking you'll do in graduate or business school, and better measures your ability to understand what you read and how you apply your reasoning skills.

### Here's what is new for the Verbal Reasoning section:

- Antonyms and analogies have been removed from the test, so there are no questions that test vocabulary out of context.
- New Text Completion questions test your ability to interpret, evaluate and reason from what you've read. Text Completion questions test this ability by omitting crucial words from short passages, requiring you to fill them in by selecting words or phrases. See sample questions to learn more.
- New Sentence Equivalence questions test your ability to reach a conclusion about how sentence should be completed while focusing on the meaning of the whole sentence. See sample questions to learn more.
- There are more Reading Comprehension questions on the test, including new types of questions, such as selecting multiple correct answer choices instead of just one, or highlighting a sentence within a reading passage to answer the question. See sample questions to learn more.



### What you need to know about the new score scale

- Verbal Reasoning scores will be reported on a new 130 170 score scale, in 1-point increments (versus 200 800 in 10-point increments).
- Quantitative Reasoning scores will be reported on a new 130 170 score scale, in 1-point increments (versus 200 – 800 in 10-point increments).
- Analytical Writing scores will continue to be reported on the same 0 6 score level, in half-point increments.



**PRACTICE GENERAL TEST** 

# Quantitative

- Basic concepts in mathematics
  - □ Arithmetic, algebra, geometry, & data analysis
  - □ Reason quantitatively
  - Quantitative problem solving

Quantitative S	Office of Intranual TRAININGS EDUCATION NATIONAL MINITURE OF HEATH
<u>T</u>	ABLE OF CONTENTS
1.	ARITHMETIC  1.1 Integers
2.	ALGEBRA   10   2.1   Translating Words into Algebraic Expressions   10   2.2 Operations with Algebraic Expressions   20   2.3 Operations with Algebraic Expressions   21   2.4   2.5   2
	ALGEBRA EXERCISES

Quantitat	ive Section Office of Intransual TRAININGS. EDUCATION. NATIONAL INSTITUTES OF REALTH.
3.	GEOMETRY 3.1 Lines and Angles
4.	GEOMETRY EXERCISES
	22   Measures of Dispersion
	DATA ANALYSIS EXERCISES

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Office financial TRAININGS EDUCATION	
Verbal	
<ul> <li>In written passages and sentences:</li> <li>Analyze, evaluate, and synthesize</li> <li>Analyze relationships in sentences</li> </ul>	
□ Recognize relationships	
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You must:	
<ul> <li>use PowerPrep software to do sample tests</li> </ul>	
<ul> <li>view all of the topics and scored sample essays for the analytical writing section</li> <li>download and use the content information on the verbal</li> </ul>	
and quantitative sections	
■ Office of intramural	
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Computer Version  On screen clock	-
<ul> <li>Un screen clock</li> <li>Leave it on and use it!!!</li> <li>Time / # questions = minutes / question</li> </ul>	-
<ul> <li>PowerPrep software is a must</li> <li>You must learn &amp; practice to be able to "pull the trigger"</li> </ul>	

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The analytical writing section is a section first introduced in October 2002 that tests your critical the ine and analytical writing skills. It assesses the file of introduced in October 2002 that tests your critical the ine and analytical writing skills. It assesses the file of introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that tests your critical the introduced in October 2002 that the introduced in October 2002 the introduce

# Analytical Writing

- Articulate complex ideas clearly
- Examine claims and evidence
- Support ideas with relevant reasons and examples
- Well-focused, coherent discussion
- Standard written English

On computer only!

# Analytical Writing: Overview

- A 45 minute Present Your Perspective on an Issue
  - ☐ There is no correct answer or position!
  - □ Readers are looking for the skill with which you articulate, develop, and support your argument.
  - $\hfill\Box$  Discuss the issue, take a position, and defend it.

# Always listen to good advice...

Purchase, read, and use,

# The Elements of Style

by Will Strunk and E. B. White!!!!

# How to practice for this section?

- Review 6 & 5 scoring essays in GRE Sample Test booklet.
   Read question carefully!

- Identify your position or ideas.
   Hopefully it is related to some knowledge base or experience.
   Evidence in support?

- Outline!!!!!Strunk & White essentials!
- Write and review answers in a group of 3 or more.

# Practice by

- Reviewing sample high scoring arguments in GRE materials.
- Write 5 or 6 of your own and have them reviewed by your group.



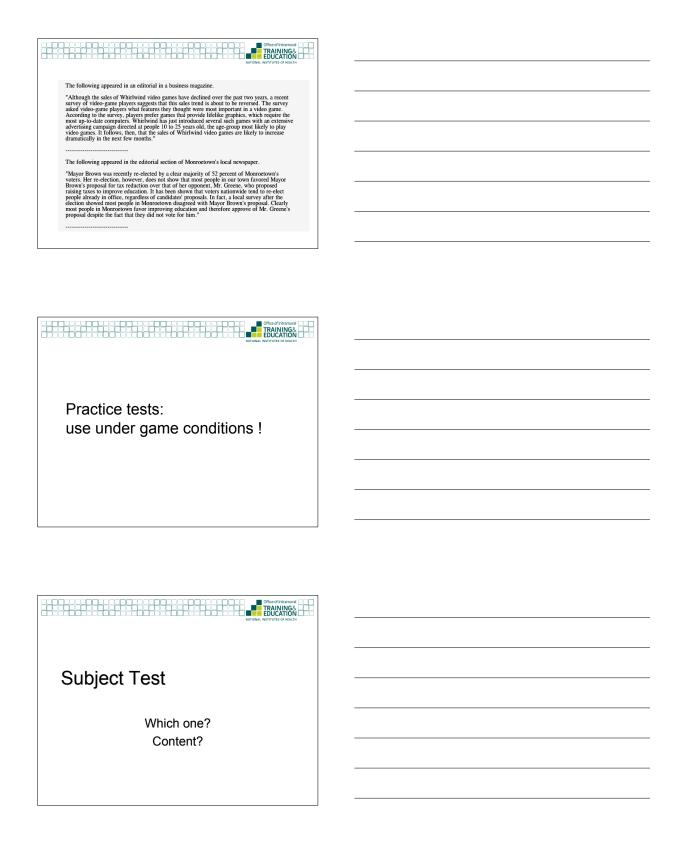
# You simply have to write practice essays!

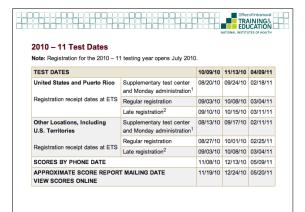
You will be surprised how much 5 or 6 *reviewed* practice exercises will help you.



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"Society does not place enough emphasis on the intellect—that is, on reasoning and other cognitive skills."
"The study of history places too much emphasis on individuals. The most significant events and trends in history were made possible not by the famous few, but by groups of people whose identities have long been forgotten."
***************************************
"Imaginative works such as novels, plays, films, fairy tales, and legends present a more accurate and meaningful picture of human experience than do factual accounts. Because the creators of fiction shape and focus reality rather than report on it literally, their creations have a more lasting significance."
"In order to improve the quality of instruction at the college and university level, all faculty should be required to spend time working outside the academic world in professions relevant to the courses they teach.
"Education will be truly effective only when it is specifically designed to meet the individual needs and interests of each student."
"Education encourages students to question and criticize, and therefore does little to promote









# The GRE subject tests content and dates:

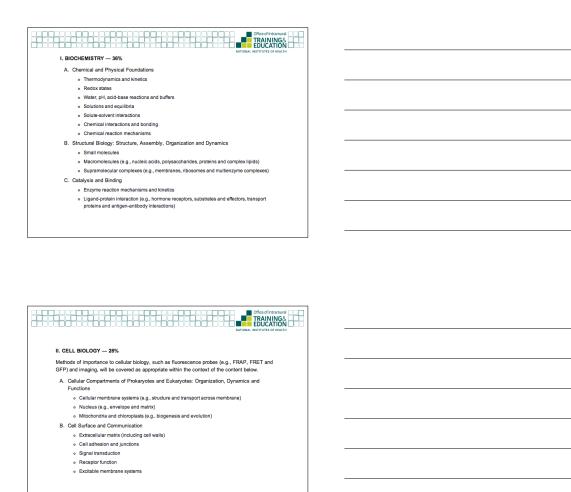
- Biochemistry, Cell and Molecular Biology
- Biology
- Chemistry
- Computer Science
- Literature in EnglishMathematics
- Physics
- Psychology

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### Biochemistry, Cell and Molecular Biology

### Download the Practice Booklet (PDF)

- The test consists of approximately 175 multiple-choice questions, a number of which are grouped in sets toward the end of the test and based on descriptions of laboratory situations, diagrams or experimental results.
- The content of the test is organized into three major areas: biochemistry, cell biology, and molecular biology and genetics. In addition to the total score, a subscore in each of these subfield areas is reported. Because these three disciplines are basic to the study of all organisms, test questions encompass both eukaryotes and prokaryotes.
- Throughout the test, there is an emphasis on questions requiring problem-solving skills (including mathematical calculations that do not require the use of a calculator) as well as content knowledge.
- While only two content areas in the following outline specifically mention methodology, questions on methodology and data interpretation are included in all sections.
- In developing questions for the test, the test development committee considers both the
  content of typical courses taken by undergraduates and the knowledge and abilities
  required for graduate work in the fields related to the test.





Mendelian and non-Mendelian inheritance

Transformation, transduction and conjugation

Recombination and complementation

Mutational analysis

Genetic mapping and linkage analysis

B. Chromatin and Chromosomes

Karyotypes

Translocations, inversions, deletions and duplications

Aneuploidy and polyploidy
 Structure

Epigenetics

C. Genomics









# The Day Before:

### -

- Normal, routine day
- Do not goof off at work keep busy
  - □ Plan to be busy with something rewarding
- Leave a little early
- No study!
  - □ If you must, only 7 items



Exam strategies  In On the clock!  In Construct a table: time vs. question number  Other strategies?	
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As always with multiple choice exams and especially since you cannot reconsider, do not look at the answers until you know it. Then find it, mark it, and move on!	